



Status of VIIRS-SNPP SR



VIIRS SR Product

Collection 1: (Released in 2017)

- VNP09 (level 2 Surface Reflectance), VNP09G1KI, VNP09GHKI, and VNP09GA (gridded daily product at 500m and 1km), VNP09A1 and VNP09H1 (gridded 8 day composite product at 500m and 1km), VNP09CMG (the daily global product in the climate modeling grid at 0.05deg).

Status and Updates:

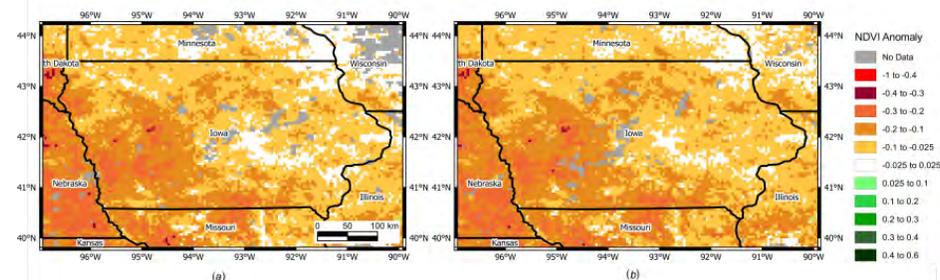
- Adapted from MODIS LaSRC (Land Surface Reflectance Code)
- Validation stage IV (AERONET) and cross-comparison with MODIS is ongoing.
- Code was ported from NPP to JPSS1 and the Science Team evaluation will start shortly (BELMANIP2, AERONET)

Known Issues:

- None

Recent Publications:

- Skakun, S., Justice, C.O., Vermote, E. and Roger, J.C., 2018. Transitioning from MODIS to VIIRS: an analysis of inter-consistency of NDVI data sets for agricultural monitoring. *International Journal of Remote Sensing*, 39(4), pp.971-992.
- Pahlevan, N., Sarkar, S., Devadiga, S., Wolfe, R.E., Román, M., Vermote, E., Lin, G., Xiong, X. (2016). Impact of Spatial Sampling on Continuity of MODIS-VIIRS Land Surface Reflectance Products: A Simulation Approach, *IEEE Transactions on Geoscience and Remote Sensing* 55.1 (2017): 183-196.
- Vermote E., Justice C., Csiszar I., Early evaluation of the VIIRS calibration, cloud mask and surface reflectance Earth data records, *Remote Sensing of Environment*, Volume 148, 25 May 2014, Pages 134-145, ISSN 0034-4257, <http://dx.doi.org/10.1016/j.rse.2014.03.028>



NDVI anomalies at 0.05° spatial resolution for the state of Iowa (US) derived from MODIS/Aqua (a), and adjusted VIIRS (b) data on August 21, 2012. Anomalies were computed by subtracting NDVI values from the median NDVI values for 2002–2016 derived from MODIS/Aqua

The derived uncertainties (for surface reflectance and VIs) related to the combined use of MODIS and VIIRS products are being estimated and reported to user community to further quantify uncertainties for high level products, e.g. crop yield models.